Appendix A: Marked-up Version of Substitute Specification

A WARP KNIT HAVING AN EXCELLENT TOUCH, AND A PROCESS OF PREPARING THE SAME

~~This Application claims priority to PCT/KR00/01196 filed November 30, 2000 and to Republic of Korea Patent Applications 2000-54840 filed September 19, 2000; 2000-54839 filed September 19, 2000; and 1999-58119 filed December 16, 1999.~~

TECHNICAL FIELD

The present invention relates to a warp knit having excellent touch and a process of preparing such a warp knit.

More particularly, the present invention relates to a warp knit with softness and draping property due to its very fine structure and thus useful for materials of artificial leathers or ladies' clothes, and a process of preparing such a warp knit.

BACKGROUND ART

If a fiber becomes fine, its bending strength becomes weakened. However, since fabrics produced with ultra fine fibers have very soft touch, researches in connection with producing such ultra fine fibers on a commercial scale are developing very actively. Also, development of the technology capable of producing extremely fine synthetic yarn leads to great improvement of the value of the goods of sensitive materials for clothes.

Generally, preparing ultra fine fiber may be accomplished by three types of processes: a direct spinning process; a two components division type spinning process; and a two components extraction type spinning process. In the direct spinning process, it is possible to prepare ultra fine fiber of 0.3to 0.5 denier. In the two component division type spinning process, it is possible to prepare ultra fine fiber of 0.2 denier. In the two component extraction type spinning process, it is possible to prepare ultra fine fiber of 0.01 denier or below.

When ultra fine fiber prepared by means of the direct spinning process is applied to a warp knit, warping property and appearance of the warp knit is very poor since numerous filaments are scattered. Furthermore, the warp knit thus prepared is very inferior to touch and writing effect. When ultra fine fiber prepared by means of the two components division type composite spinning process consisting of nylon/polyester is applied to a warp knit, warping property and knitting property of the warp knit is very poor since the nylon is isolated from the polyester by means of the tension and friction in warping and knitting. Furthermore, appearance of the prepared product is very poor due to limit of the denier of the ultra fine fiber.

When composite fiber of 0.05 denier or below prepared by means of the two-component extraction type spinning process is applied to a warp knit, warping property, knitting property and touch of the warp knit are good; however, density of the structure of the warp knit is non-uniform and thus appearance of the warp knit is poor. Furthermore, the warp knit prepared by means of the afore-said process is inferior in shape stability and flexibility.

A variety of goods are produced with ultra fine fiber in connection with textile applications. However, producing goods with ultra fine fiber is not developing in connection with knitting applications because of the poor warping property and the several drawbacks mentioned above.

Accordingly, it is an object of the present invention to prepare a warp knit, which has excellent touch, shape stability, flexibility, and appearance, and thus is suitable for materials of ladies' clothes, with good warping property and knitting property.

SUMMARY OF THE INVENTION

The present invention provides a warp knit which has excellent touch, shape stability, flexibility, and appearance, and thus is suitable for materials of ladies' clothes. The present invention also provides a process of preparing such a warp knit with good warping property and knitting property.

More particularly, the present invention relates to a warp knit consisting of three plies ~~layers~~, namely a front surface ply ~~layer~~, a rear surface ply ~~layer~~, and an intermediate ply ~~layer~~ arranged between the front surface ply ~~layer~~ and the rear surface ply ~~layer~~. The front surface ply ~~layer~~ consisting of ultra fine yarn with mono-filament denier of 0.01 to about 0.3 denier, the intermediate ply ~~layer~~ consisting of spandex elastic yarn, the rear surface ply ~~layer~~ consisting of synthetic yarn or high shrinkage yarn with mono-filament denier of 1 to about 5 denier, wherein the recovery rate of elongation in the directions of wale and course is 25 to about 60 %.

The present invention also relates to a process of preparing a warp knit having excellent touch, comprising the steps of: knitting a warp knit with composite fiber made of a fiber forming component of 0.01 to about 0.3 denier, and an extraction component as a yarn for the front surface ply ~~layer~~, a spandex elastic yarn as a yarn for the intermediate ply ~~layer~~, and a polyester yarn or high shrinkage yarn with mono-filament of 1 to about 5 denier as a yarn for the rear surface ply ~~layer~~; and then raising the warp knit until the shrinkage rate of the warp knit is 40% or more, and then pre-heating, extracting the extraction component from the composite yarn, dyeing, buffing, and finally heating the warp knit continuously through hot air dryer.

BRIEF DESCRIPTION OF THE DRAWINGS

The preferred embodiment of the present invention will now be described by way of example with reference to the accompanying drawings in which:

Fig. 1 is a graph showing recovery rate of elongation of a warp knit measured using an Instron in accordance with the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The selection and the combination of the materials is very important in order to prepare polyester warp knit which is as soft as natural suede and which has excellent

appearance as well as excellent warping and knitting property.

First of all, the present invention uses a composite fiber consisting of fiber forming components of 0.01 to about 0.3 denier and extracting fiber components as a yarn for the front surface ply ~~layer~~. When the extraction component is removed from the composite fiber, a fiber-forming component with monofilament denier of 0.01 to about 0.3 denier is left. If the monofilament denier of the yarn for the front surface ply ~~layer~~ is more than 0.3 denier, its soft touch is poor and the writing effect poor. If the monofilament denier of the yarn of the front surface ply ~~layer~~ is less than 0.01 denier, its soft touch is maintained, but its appearance is poor since raised fibers are omitted or entangled due to friction.

It is preferable that polyester is used as the fiber-forming component and copolyester with excellent alkali hydrolysis property is used as the extraction component of the composite fiber of the yarn of the front surface ply ~~layer~~. The content of the extraction component in the composite fiber is generally 20 to about 40 % by weight.

It is preferable that the density of the yarn of the front surface ply ~~layer~~ is increased in order to improve the touch of the warp knit. For increasing the density of the yarn of the front surface ply ~~layer~~, it is possible to reduce the content of extraction component in the composite fiber during the manufacturing stage; However, reductions in the content of the extraction component of the composite fiber is technically limited by the spinning process, and there are also limitations in increasing the density the front surface yarn even if the content of the extraction component in the composite fiber is reduced. For the purposes of this description, density refers to the number of fibers per inch of the warp knit and this term is expressed in terms of wales and courses per inch of the warp knit.

The present invention is further characterized in that spandex elastic yarn are used as yarn of the intermediate ply ~~layer~~, whereby the yarn density of the front surface ply ~~layer~~ is increased by virtue of the shrinkage of the intermediate ply ~~layer~~. The spandex elastic yarn, which is a yarn of the intermediate ply ~~layer~~, has excellent shrinking property, and therefore increases the yarn density of the front surface ply ~~layer~~ of the finished warp knit, and provides

good touch and flexibility to the warp knit. The total denier of the spandex elastic yarn is preferably between 30 and 90 denier.

Next, synthetic yarn with monofilament denier of 1 to about 5 denier, more preferably of polyester yarn or high shrinkage yarn, is used as the yarn for the rear surface ply ~~layer~~. If the monofilament denier of the yarn at the rear surface ply ~~layer~~ is less than 1 denier, draping property of the warp knit is decreased. If the monofilament denier of the yarn at the rear surface ply ~~layer~~ is more than 5 denier, warping property and knitting property of the warp knit are deteriorated. If the regular polyester yarn is used as the yarn of the rear surface ply ~~layer~~, mechanical stability and shape stability of the warp knit is improved. Preferably, polyester yarn of 50 denier/24 filament is used as the yarn of the rear surface ply ~~layer~~. The high shrinkage yarn has high shrinkage rate in boiling water, preventing the ultra fine yarn of the front surface ply ~~layer~~ from come out of the rear surface ply ~~layer~~.

The high shrinkage yarn, which is used as the yarn of the rear surface ply ~~layer~~, preferably has the shrinkage rate in boiling water of 15 to about 50 % and the stress of the heat shrinkage of 0.2 g/d or more. If the shrinkage rate of boiling water is less than 15 %, it is not possible to increase the density of ultra fine yarn, which is the yarn of the front surface ply ~~layer~~, and thus the touch is poor since the shrinkage is extremely low. If the shrinkage rate in boiling water is more than 50 %, it is possible to increase the density of ultra fine yarn, which is the yarn of the front surface ply ~~layer~~; however, it is hard to control the process width of the finished warp knit since the shrinkage is extremely high. Furthermore, if the stress of the heat shrinkage is less than 0.2 g/d, the stress between the structural points is not overcome even if the shrinkage rate in boiling water is high, and therefore sufficient shrinkage is not provided.

Copolyester is preferably used as the high shrinkage yarn mentioned above. Co-polymer components include bisphenol-A, polyethyleneglycol, isophthalic acid or the like. However, the present invention is not limited to the co-polymer components described above.

The content of the yarn of the front surface ply ~~layer~~ when it is knitted is preferably 40 to about 87 % by weight of the total weight of the processed warp knit. If the content of

the yarn of the front surface ply ~~layer~~ is less than 40 % in weight, the touch of the warp knit is poor. If the content of the yarn of the front surface ply ~~layer~~ is more than 87 % in weight, the draping property and the mechanical property of the warp knit is deteriorated as the content of the yarn of the intermediate ply ~~layer~~ and the yarn of the rear surface ply ~~layer~~ are little relatively.

On the other hand, the content of the yarn of the intermediate ply ~~layer~~ and the yarn of the rear surface ply ~~layer~~ is preferably 3 to about 20 % in weight and 10 to about 57 % in weight of the total weight of the processed warp knit, respectively. If the content of the yarn of the intermediate ply ~~layer~~ and the yarn of the rear surface ply ~~layer~~ is more than the range mentioned above respectively, the touch of the warp knit is poor; and if the content of the yarn of the intermediate ply ~~layer~~ and the yarn of the rear surface ply ~~layer~~ is less than the range mentioned above respectively, the shape stability and the draping property of the warp knit are deteriorated.

The present invention is further characterized in that raw warp knit as mentioned above is raised so that the shrinkage rate of the raw warp knit is 40 % or more before pre-heat treatment of the raw warp knit. After the raw warp knit is raised according to the present invention, it is pre-heat-treated as usual, and treated in alkali solution, whereby the extraction component is removed from the composite fiber. After that, the warp knit is dyed, buffered and finally heat-treated.

It is preferable to maintain the density of the processed warp knit at 40 to about 80 wale/course number/inch so that excellent touch and shape stability is obtained.

The warp knit of the present invention is composed densely out of ultra fine yarn with monofilament denier of 0.01 to about 0.3 denier, whereby its touch and appearance are very excellent. Especially, as the warp knit of the present invention includes an intermediate ply ~~layer~~ consisting of spandex elastic yarn with excellent flexibility, the density of the ultra fine yarn at the front surface ply ~~layer~~ is higher, and recovery rate of elongation of the warp knit in the directions of the wale and the course is 25 to about 60 %, which represents

excellence. Also, as the warp knit of the present invention includes the rear surface ply ~~layer~~ consisting of yarn of regular synthetic yarn with mono-filament denier of 1 to about 5 denier, the shape stability and the mechanical property of the warp knit are excellent.

As described in detail above, the warp knit of the present invention has excellent touch, appearance, flexibility, shape stability, and draping property, and thus it is suitable for materials for ladies' clothes or materials for artificial leathers.

The properties of the warp knit according to the present invention are evaluated as follows:

Softness

Softness of the warp knit is evaluated from the sensitive examination by ten specialists. If more than eight specialists determine that the warp knit is soft, it is excellent. If five to about seven specialists determine that the warp knit is soft, it is ordinary. If more than eight specialists determine that the warp knit is not soft, it is poor.

Draping property

Draping property of the warp knit is evaluated from the sensitive examination by ten specialists. If more than eight specialists determine that the warp knit has draping property, it is excellent. If five to about seven specialists determine that the warp knit has draping property, it is ordinary. If more than eight specialists determine that the warp knit has poor draping property, it is poor.

Writing effect

Writing effect of the warp knit is evaluated from the sensitive examination by ten specialists. If more than eight specialists determine that the warp knit has good writing effect, it is excellent. If five to about seven specialists determine that the warp knit has good writing effect, it is ordinary. If more than eight specialists determine that the warp knit has poor writing effect, it is poor.

Appearance

Appearance of the warp knit is evaluated from the sensitive examination by ten

specialists. If more than eight specialists determine that the warp knit has good appearance, it is excellent. If five to about seven specialists determine that the warp knit has good appearance, it is ordinary. If more than eight specialists determine that the warp knit has poor appearance, it is poor.

Recovery rate of elongation (%)

Total measurement is carried out according to KSK 08125, but proper elongation length when being elongated at constant velocity is measured using JIS L 1096. Both ends of a sample of the warp knit with length of 10 cm and width of 15 cm are fixed to Instron. The warp knit is elongated constantly at the stretching velocity of 100 mm/min until the load of 750 g is reached. The warp knit is left as it is with the load being removed. Next, the warp knit is elongated at the constant velocity up to the original position. And then, the warp knit is left as it is for three minutes with the load being removed. The above process is repeatedly carried out five times. Finally, the elongated length L and the free elongated length L_1 are measured. The free elongated length L_1 is obtained by subtraction of the length measured after the warp knit is left as it is from the elongated length L (See Fig. 1). The recovery rate of elongation is obtained by putting the elongated length (L) and the free elongated length (L_1) in the following equation:

Recovery rate of elongation (%) = [elongated length (L) - free elongated length (L_1)]/elongated length (L) × 100

The present invention is understood more concretely by comparison between examples of the present invention and comparative examples. However, the present invention is not limited to such examples.

Example 1

First, the raw warp knit is prepared by using an extraction type composite fiber, wherein the fiber forming component is polyethylene terephtalate and the extraction component is copolyester copolymerized with 7 mole% dimethylene sulfurisophthalic sodium, to yield 0.05 denier ultra fine yarn after removing the extraction component. This

ultra fine yarn serves as a yarn for the front surface ply ~~layer~~. For the intermediate ply ~~layer~~, spandex elastic yarn of 40 denier/ 5 filament is used, yarn of the intermediate ply ~~layer~~ and then polyester yarn with monofilament of 5 denier is used as a yarn for the rear surface ply ~~layer~~. Weight ratio of the yarn of the front surface ply ~~layer~~ to the yarn of the intermediate ply ~~layer~~ to the yarn of the rear surface ply ~~layer~~ is 55 % to 10 % to 35 %. Next, the manufactured raw warp knit is treated with raising machine until 50% shrinkage of the warp knit is reached.. Next, the warp knit is pre-heated at 190 ^{0}C, dipped in NaOH solution (1% concentration) for 30 minutes at 98 ^{0}C in order to remove the extraction component of the composite fiber. Then a processed warp knit is prepared having a density of 60 wales and courses/inch by dyeing (with disperse dyes), buffing and heating at 180 ^{0}C to finally obtain a warp knit of the present invention. The properties of the processed warp knit are evaluated as mentioned above. The results of the evaluation are indicated in Table 1.

Example 2

First, the raw warp knit is prepared by using an extraction type composite fiber, wherein the fiber forming component is polyethylene terephtalate and the extraction component is copolyester copolymerized with 7 mole % of dimethylene sulfurisophthalic sodium, to yield 0.07 denier of ultra fine yarn after removing the extraction component. This ultra fine yarn serves as a yarn for the front surface ply ~~layer~~. For the intermediate ply ~~layer~~, spandex elastic yarn of 40 denier/ 5 filaments is used. and then polyester yarn with mono filaments of 3 denier is used as a yarn for the rear surface ply ~~layer~~. Weight ratio of the yarn of the front surface ply ~~layer~~ to the yarn of the intermediate ply ~~layer~~ to the yarn of the rear surface ply ~~layer~~ is 60 % to 5 % to 35 %. Next, the manufactured raw warp knit is treated with a raising machine until 55% shrinkage of the warp knit is reached. Next, the warp knit is pre-heated at 190 ^{0}C, dipped in NaOH solution (1% concentration) for 30 minutes at 98 ^{0}C in order to remove the extraction component of the composite fiber. Then processed warp knit is prepared having a density of 55 wales and courses/inch by dyeing (with disperse dyes), buffing and heating at 180 ^{0}C to finally obtain a warp knit of the present invention. The

properties of the processed warp knit are evaluated as mentioned above. The results of the evaluation are indicated in Table 1.

Example 3

First, the raw warp knit is prepared by using an extraction type composite fiber, wherein the fiber forming component is polyethylene terephtalate and the extraction component is copolyester copolymerized with 7 mole% dimethylene sulfurisophthalic sodium, to yield 0.05 denier ultra fine yarn after removing the extraction component. This ultra fine yarn serves as a yarn for the front surface ply ~~layer~~. For the intermediate ply ~~layer~~, spandex elastic yarn of 40 denier/ 5 filaments is used. Then copolyester yarn with monofilament of 5 denier and shrinkage rate in boiling water of 28% (high shrinkage yarn) is used as a yarn for the rear surface ply ~~layer~~. Weight of the yarn of the front surface ply ~~layer~~ to the yarn of the intermediate ply ~~layer~~ to the yarn of the rear surface ply ~~layer~~ is 55 % to 10 % to 35 %. Next, the manufactured raw warp knit is treated with a raising machine until 50% shrinkage of the warp knit is reached. Next, the warp knit is pre-heated at 190 ^{0}C, dipped in NaOH solution (1% concentration) for 30 minutes at 98 ^{0}C in order to remove the extraction component of the composite fiber. Then a processed warp knit is prepared having a density of 60 wales and courses/inch by dyeing (with disperse dyes), buffing and heating at 180 ^{0}C to finally obtain the warp knit of the present invention. The properties of the processed warp knit are evaluated as mentioned above. The results of the evaluation are indicated in Table 1.

Example 4

First, the raw warp knit is prepared by using an extraction type composite fiber, wherein the fiber forming component is polyethylene terephtalate and the extraction component is copolyester copolymerized with 7 mole% of dimethylene sulfurisophthalic sodium, to yield 0.07 denier of ultra fine yarn after removing the extraction component. This ultra fine yarn serves as a yarn for the front surface ply ~~layer~~. For the intermediate ply ~~layer~~, spandex elastic yarn of 40 denier/ 5 filaments is used. and then copolyester yarn with mono filament of 3 denier and shrinkage rate in boiling water of 20% (high shrinkage yarn) is used

as a yarn for the rear surface ply ~~layer~~. Weight of the yarn of the front surface ply ~~layer~~ to the yarn of the intermediate ply ~~layer~~ to the yarn of the rear surface ply ~~layer~~ is 60 % to 5 % to 35 %. Next, the manufactured raw warp knit is treated with a raising machine until 55% shrinkage of the warp knit is reached. Next, the warp knit is pre-heated at 190 ^{0}C, dipped in NaOH solution (1% concentration) for 30 minutes at 98 ^{0}C in order to remove the extraction component of the composite fiber. Then a processed warp knit is prepared having the density of 55 wales and courses/inch by dyeing (with disperse dyes), buffing and heating at 180 ^{0}C to finally obtain a warp knit of the present invention. Then, the properties of the processed warp knit are evaluated as mentioned above. The results of the evaluation are indicated in Table 1.

Comparative Example 1

First, the raw warp knit is prepared by using an extraction type composite fiber, wherein the fiber forming component is polyethylene terephtalate and the extraction component is copolyester copolymerized with 7 mole % dimethylene sulfurisophthalic sodium, to yield 0.05 denier ultra fine yarn after removing the extraction component. This ultra fine yarn serves as a yarn for the front surface ply ~~layer~~. Polyester yarn with mono filament of 0.5 denier is used as a yarn for the rear surface ply ~~layer~~. At this time, weight ratio of the yarn of the front surface ply ~~layer~~ to the yarn of the rear surface ply ~~layer~~ is 55 % to 45 %. Next, the manufactured raw warp knit is treated with raising machine until 50% shrinkage of the warp knit is reached. Next, the warp knit is pre-heated at 190 ^{0}C, dipped in NaOH solution (1% concentration) for 30 minutes at 98 ^{0}C in order to remove the extraction component of the composite fiber. Then a processed warp knit is prepared having a density of 60 wales and courses/inch by dyeing (with disperse dyes), buffing and heating at 180 ^{0}C to finally obtain warp knit. The properties of the processed warp knit are evaluated as mentioned above. The results of evaluation are indicated in Table 1.

Comparative Example 2

First, the raw warp knit is prepared by using an extraction type composite fiber, wherein the fiber forming component is polyethylene terephtalate and the extraction component is copolyester copolymerized with 7 mole% dimethylene sulfurisophthalic sodium, to yield 0.4 denier ultra fine yarn after removing the extraction component. This ultra fine yarn serves as a yarn of the front surface ply ~~layer~~. Polyester yarn with mono filament of 0.5 denier is used as a yarn of the rear surface ply ~~layer~~. At this time, weight ratio of the yarn of the front surface ply ~~layer~~ to the yarn of the rear surface ply ~~layer~~ is 60 % to 40 %. Next, the manufactured raw warp knit is treated with raising machine until 20% shrinkage of the warp knit is reached. Next, the warp knit is pre-heated at 190 ^{0}C , dipped in NaOH solution (1% concentration) for 30 minutes at 98 ^{0}C in order to remove the extraction component of the composite fiber. Then a processed warp knit is prepared having a density of 60 wales and courses/inch by dyeing (with disperse dyes), buffing and heating at 180 ^{0}C to finally the warp knit. The properties of the processed warp knit are evaluated as mentioned above. The results of the evaluation are indicated in Table 1.

Comparative Example 3

First, the raw warp knit is prepared by using an extraction type composite fiber, wherein the fiber forming component is polyethylene terephtalate and the extraction component is copolyester copolymerized with 7 mole% dimethylene sulfurisophthalic sodium, to yield 0.05 denier ultra fine yarn after removing the extraction component. This ultra fine yarn serves as a yarn for the front surface ply ~~layer~~. Polyester yarn with mono filament of 10 denier is used as a yarn for the rear surface ply ~~layer~~. At this time, weight ratio of the yarn of the front surface ply ~~layer~~ to the yarn of the rear surface ply ~~layer~~ is 55 % to 45 %. Next, the manufactured raw warp knit is treated with raising machine until 55% shrinkage of the warp knit is reached. Next, the warp knit is pre-heated at 190 ^{0}C, dipped in NaOH solution (1% concentration) for 30 minutes at 98 ^{0}C in order to remove the extraction component of the composite fiber. Then, a processed warp knit is prepared having a density

of 60 wales and courses/inch by dyeing (with disperse dyes), buffing and heating at 180 ^{0}C to finally obtain the warp knit. The properties of the processed warp knit are evaluated using the above-mentioned methods. The results of the evaluation are indicated in Table 1.

Comparative Example 4

First, the raw warp knit is prepared by using an extraction type composite fiber, wherein the fiber forming component is polyethylene terephtalate and the extraction component is copolyester copolymerized with 7 mole% dimethylene sulfurisophthalic sodium, to yield 0.05 denier of ultra fine yarn after removing the extraction component. This ultra fine yarn serves as a yarn for the front surface ply ~~layer~~. Polyester yarn with mono filament of 0.5 denier is used as a yarn of the rear surface ply ~~layer~~. At this time, weight ratio of the yarn of the front surface ply ~~layer~~ to the yarn of the rear surface ply ~~layer~~ is 55 % to 45 %. Next, the manufactured raw warp knit is treated with a raising machine until 50% shrinkage of the warp knit is reached. Then the warp knit is pre-heated at 190 ^{0}C, dipped in NaOH solution (1% concentration) for 30 minutes at 98 ^{0}C in order to remove the extraction component of the composite fiber. A processed warp knit is prepared having a density of 60 wales and courses/inch by dyeing (with disperse dyes), buffing and heating at 180 ^{0}C to finally obtain the warp knit. The properties of the processed warp knit are evaluated as mentioned above. The results of the evaluation are indicated in Table 1.

Comparative Example 5

First, the raw warp knit is prepared by using an extraction type composite fiber, wherein the fiber formation component is polyethylene terephtalate and the extraction component is copolyester copolymerized with 7 mole% of dimethylene sulfurisophthalic sodium, to yield 0.05 denier of ultra fine yarn after removing the extraction component. This ultra fine yarn is used as a yarn for the front surface ply ~~layer~~. Polyester yarn with mono filament of 10 denier is used as a yarn for the rear surface ply ~~layer~~. At this time, the weight ratio of the yarn of the front surface ply ~~layer~~ to the yarn of the rear surface ply ~~layer~~ is 55 % to 45 %. Next, the manufactured raw warp knit is treated with a raising machine until 55%

shrinkage of the warp knit is reached. Then the warp knit is pre-heated at 190 ^{0}C, and dipped in NaOH solution (1% concentration) for 30 minutes at 98 ^{0}C in order to remove the extraction component of composite fiber. Then a processed warp knit is prepared having a density of 60 wales and courses/inch by dyeing (with disperse dyes), buffing and heating at 180 ^{0}C to finally obtain the warp knit. The properties of the processed warp knit are evaluated as mentioned above. The results of the evaluation are indicated in Table 1.

Table 1: Results of property evaluation of warp knit

Class	Softness	Draping Property	Witting effect	Appearance	Recovery rate of elongation (%)	
					In the direction of wale	In the direction of course
Example 1	Excellent	Excellent	Excellent	Excellent	41.9	37.6
Example 2	Excellent	Excellent	Excellent	Excellent	35.7	32.8
Example 3	Excellent	Excellent	Excellent	Excellent	42.2	38.7
Example 4	Excellent	Excellent	Excellent	Excellent	36.1	33.5
Comparative example 1	Ordinary	Poor	Excellent	Ordinary	20.0	18.6
Comparative example 2	Poor	Excellent	Poor	Ordinary	15.9	17.2
Comparative example 3	Poor	Excellent	Excellent	Ordinary	10.4	13.0
Comparative example 4	Ordinary	Poor	Excellent	Ordinary	20.2	18.6
Comparative example 5	Poor	Excellent	Excellent	Ordinary	10.4	13.0

As described above, the warp knit according to the present invention has excellent touch, appearance, elastic recovery rate, draping property, and thus is useful for materials of artificial leathers or ladies' clothes. Furthermore, the process of preparing such a warp knit according to the present invention has very excellent warping property and knitting property.